Rabbit Hemorrhagic Disease

The first report of rabbit hemorrhagic disease (RHD) in the Western Hemisphere occurred in December 1988, when the disease was detected in domestic rabbits in the Mexico City area. The outbreak was traced to a shipment of 18 metric tons of frozen rabbit carcasses from China that had been delivered to a supermarket chain outside Mexico City.

In February 1989, the Mexican Government began a control and eradication program that included quarantine of infected farms, prohibition of movement or sale of rabbits, voluntary destruction of diseased rabbits, and cleaning, disinfecting, and repopulating premises after a 2–month waiting period. The campaign was successful: there have been no reported cases since 1992. To date, Mexico is the only country to succeed in eradicating RHD.

RHD was first documented in the Unites States in Iowa in April 2000. Since that time, RHD has also been confirmed in Utah, Illinois, New York, and Indiana. To contain these outbreaks, more than 5,000 rabbits have been euthanized.

Clinical Signs

RHD damages the liver, intestines, and lymphatic tissue and causes significant hemorrhage (bleeding) into many different organs. The incubation period is about 24 to 48 hours. RHD predominantly affects adult rabbits and young adults (> 2 months of age) which die suddenly within 6 to 24 hours of the onset of fever with few clinical signs. Fever may be as high as 105 °F (40.5 °C) but often is not detected until rabbits show terminal clinical signs. Most animals appear depressed or reluctant to move in the final hours and may show a variety of neurologic signs, including excitement, incoordination, paddling, and opisthotonos (abnormal position of the head due to spasms of the muscles at the top and back of the neck). Some affected rabbits may have a foamy, bloody nasal discharge. The death rate for RHD ranges from 50 to 100 percent.

How RHD Spreads

RHD is caused by a highly contagious virus. The disease can be transmitted by contact with infected rabbits, rabbit products (such as meat and hides), rodents, and contaminated objects, such as cages, feeders, and clothing. The virus may also be carried short distances through moisture in the air. The risk of spread of RHD is higher when confined rabbits are in close contact with each other. Infected rabbits that recover may become carriers of the virus and may shed virus for at least 4 weeks.

Impact of Disease Spread

If RHD were to become established in the United States, it would have a significant impact on domestic rabbits in North America. Producers of domestic rabbits receive about $10 million each year from the sale of rabbit meat and pelts in the United States. The value of rabbits raised for research in the United States is about $15 million a year.

This estimated total value of $25 million a year does not include several factors such as the impact on the availability of rabbits for research and the production of medical diagnostic materials, and the value, both monetary and emotional, of the pet and show rabbit industry.

Disease Prevention

To protect against the introduction of RHD into the U.S. rabbit population, owners and producers should avoid contact between their rabbits and imported rabbit meat, pelts, or other possibly contaminated objects from RHD–affected countries.

To prevent the spread of the disease if it enters the United States, rabbit owners should prevent contact between healthy rabbits and infected rabbits and contaminated objects (e.g., cages, feeders, and clothing). Rabbits that appear healthy can be in the early stage of RHD and later spread the disease. Recovered rabbits also appear healthy but can be carriers for at least 4 weeks and spread the disease to other rabbits.

Owners should be cautious and isolate new rabbits and rabbits returning from shows for at least 5 days. If rabbits have been exposed to RHD, isolation may help prevent spread to other rabbits. Clinical disease usually will be noticeable within 48 hours of infection.

If RHD is suspected, rabbit owners should clean and disinfect all equipment to prevent spread of the virus. After a thorough cleaning, rabbit owners should disinfect equipment with a 10–percent household bleach solution of 1 part bleach and 9 parts water to inactivate the virus.

Vaccine

No vaccine for RHD is legally available for use in the United States. However, vaccine has been used in other countries. Vaccination can reduce the number of rabbits dying from RHD but cannot eradicate the disease. Rabbits vaccinated against RHD may become infected but not show signs of disease, thereby allowing spread of the virus due to this carrier state.

Report Possible Disease

Veterinarians and rabbit owners who suspect a rabbit may have RHD should immediately contact State or Federal animal health authorities.

Additional Information

For more information, contact

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